UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,432	02/04/2002	Anindya Datta	08928.105001	7871

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EXAMINER
POLLACK, MELVIN H

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 February 2002</u>.

2a)☐ This action is FINAL.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-43</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-43</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04 February 2002</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>1/23/04</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☒ Other: <u>see attached office action</u>.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement filed 23 January 2004 fails to comply with 37 CFR

1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent

literature publication or that portion which caused it to be listed; and all other information or that

portion which caused it to be listed. It has been placed in the application file, but the information

referred to therein has not been considered.

2.   The following document was not included in the file: Red Brick Systems, Inc., Star

Schema Processing for complex Queries, White Paper, pages 1-21.

Drawings

3.   Figure 1 should be designated by a legend such as --Prior Art-- because only that which is

old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR

1.121(d) are required in reply to the Office action to avoid abandonment of the application. The

replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR

1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted

by the examiner, the applicant will be notified and informed of any required corrective action in

the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-4, 11-16, 22-24, 28-34 are rejected under 35 U.S.C. 102(e) as being anticipated

by Craig et al. (6,757,708).

6.   For claim 1, Craig teaches a web page delivery system (abstract) for dynamically

generating a web page comprising cacheable content (col. 1, line 1 – col. 5, line 45), said

delivery system comprising:

        a.   An origin site infrastructure (Fig. 2, #47) comprising

                i.   An application server (Fig. 2, #47) operative to receive a web page request

from a user (Fig. 5, #500), to generate a web page template corresponding to a

layout of the web page (Fig. 3B, #355), and to forward the template for creation

of the web page (Fig. 4, #420), and

                ii.   A back-end monitor operative to insert a key into the template, (col. 9,

lines 25-35) the key identifying a cacheable content fragment (col. 8, line 60 –

col. 9, line 5); and

        b.   A dynamic proxy cache (Fig. 2, #46) operative to receive the template (col. 8, line

35 – col. 9, line 40) from said application server (col. 11, lines 35-50), to create the web

page as instructed in the template by inserting the cacheable content fragment identified

by the key (Fig. 3B, #360 and #361), and to deliver the web page to the user (Fig. 3B,

#310b).

7.   For claims 2, 33, Craig teaches that said back end monitor is further operative to

determine whether the web page comprises the cacheable content fragment Fig. 5, #510), and

wherein said back end monitor inserts the key into the template in response to a determination

that the web page comprises the cacheable content fragment (Fig. 4, #425).

8.   For claims 3, 16, said back end monitor is further operative to determine whether the

cacheable content fragment is stored in said dynamic proxy cache (Fig. 5, #520), and wherein

said back end monitor inserts the key into the template in response to a determination that the

cacheable content fragment is stored in said dynamic proxy cache (Fig. 4, #435 and #475).

9.   For claims 4, 23, Craig teaches that said back end monitor is further operative to

determine whether the cacheable content fragment is stored in said dynamic proxy cache (Fig. 5,

#520), wherein said back end monitor generates the cacheable content fragment and inserts the

cacheable content fragment into the template in response to a determination that the cacheable

content fragment is not stored in said dynamic proxy cache (Fig. 9, #900), and wherein said

dynamic proxy cache stores the cacheable content fragment after receiving the template from

said application server (Fig. 9, #905).

10.   Claims 11, 28-32, 34 are drawn to the limitations in claim 1. Craig teaches the added

limitations of executing a script in response to the web page request (Fig. 9, #920), the script

comprising a code block corresponding to a content fragment of the web page (col. 8, lines 35-

45), and determining whether the content fragment is cacheable (Fig. 5, #530; Fig. 9, #910).

Therefore, since claim 1 is rejected, claim 11 is also rejected for the reasons above.

11.   For claim 12, Craig teaches that said deciding step comprises determining whether the

code block comprises a tag indicating that the content fragment is cacheable (col. 13, lines 20-

50).

12.   For claim 13, Craig teaches that the code block comprises a tag indicating cache

characteristics of the content fragment, and said determining step comprises reading the tag to

determine the cache characteristics of the content fragment (col. 16, lines 40-50).

13.   For claim 14, Craig teaches executing the code block to generate the content element in

response to a determination that the content fragment is non-cacheable, and inserting the non-

cacheable content element into the template (col. 17, lines 5-10).

14.   For claim 15, Craig teaches inserting a command into the template in response to a

determination that the content fragment is cacheable (col. 16, lines 45-65), the command

instructing the dynamic proxy cache to retrieve the cacheable content fragment (col. 16, lines 1-

25).

15.   For claim 22, Craig teaches storing the cacheable content fragment in architecture of a

web site (Fig. 2).

16.   For claim 24, Craig teaches inserting a command into the template, the command

instructing the dynamic proxy cache to perform said storing step (col. 9, lines 20-40).

Claim Rejections - 35 USC § 103

17.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

18.   Claims 5-9, 17, 18, 20, 25-27, 35, 39, 43 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Craig as applied to claims 1, 11, 23 above, and further in view of Matsumoto

et al. (6,757,726).

19.   For claims 5, 25, Craig teaches the ability to update cacheable content fragments (Fig. 6; col. 14, lines 40-65) and the potential use of a lookup table (col. 12, lines 44-50), but does not expressly disclose that said back end monitor is further operative to maintain a cache directory comprising information that the cacheable content fragment is stored in said dynamic proxy cache. Matsumoto teaches a method (abstract) of proxy cache management (col. 1, line 1 – col. 5, line 16) in which an administering unit (back end) maintains a table (directory) to be administered (col. 7, lines 15-25) and that comprises said information (Figs. 7-11). At the time the invention was made, one of ordinary skill in the art would have added a Matsumoto cache directory to Craig in order to increase the efficiency of the cache system (col. 2, lines 45-50), particularly by determining the most efficient areas to store a bean and copies thereof (col. 2, line 65 – col. 3, line 5; col. 3, lines 20-25).

20.   For claims 6, 17, 26, Craig teaches that said back end monitor is further operative to update the cache directory if the cacheable content fragment becomes invalid (Fig. 6, #600; serialVersionUID used to determine if an updated component is available).

21.   For claims 7, 18, 20, 27, Craig teaches that said back end monitor is further operative to send a message to said dynamic proxy cache to remove the invalid cacheable content fragment (Fig. 6, #625).

22.   For claim 8, Craig teaches multiple caches and storage areas (Fig. 4), but does not expressly disclose a plurality of dynamic proxy caches, wherein said back end monitor is further operative to determine whether the cacheable content fragment is stored in a specific one of said plurality of dynamic proxy caches. Matsumoto teaches the plurality of caches (Fig. 4), wherein a determination of cache location is made (col. 7, line 60 – col. 8, line 10). At the time the

invention was made, one of ordinary skill in the art would have added Matsumoto fragment

storage tracking to Craig in order to allow fewer stored fragments (col. 2, lines 65-67).

23.   For claims 9, 39, Craig does not expressly disclose that said back end monitor is further

operative to maintain a cache directory comprising information indicating whether the cacheable

content fragment is stored in a specific one of said plurality of dynamic proxy caches.

Matsumoto teaches this limitation (col. 8, lines 35-50). At the time the invention was made, one

of ordinary skill in the art would have added Matsumoto fragment storage tracking to Craig in

order to allow fewer stored fragments (col. 2, lines 65-67).

24.   For claim 35, Craig does not expressly disclose determining whether a content fragment's

fragment ID corresponding to the cacheable content fragment exists in a cache directory

maintained at a web site, the cache directory comprising information indicating whether the

content fragment is stored in a dynamic proxy cache, assigning a key to the content element in

response to a determination that the fragment ID does not exist in the cache directory, and

inserting the key into the cache directory. Matsumoto teaches this process (col. 12, lines 5-35).

At the time the invention was made, one of ordinary skill in the art would have added Matsumoto

fragment storage tracking to Craig in order to allow fewer stored fragments (col. 2, lines 65-67).

25.   Claim 43 is drawn to the limitations in claim 11. Therefore, since claim 11 is rejected,

claim 43 is also rejected for the reasons above.

26.   Claims 10, 19, 21, 36-38, 40-42 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Craig and Matsumoto as applied to claims 9, 11, 35, 39 above, and further in

view of Mattis et al. (6,128,627).

27.   For claims 10, 19, 40, Craig and Matsumoto do not expressly disclose that the

information comprises a bit vector associated with the cacheable content fragment. Mattis

teaches a method (abstract) of managing proxy caches (col. 1, line 1 – col. 6, line 60) using

associations with bit vectors (col. 8, line 50 – col. 14, line 5; esp. col. 10, lines 13-23 and col. 11,

lines 40-50). At the time the invention was made, one of ordinary skill in the art would have

used bit vectors in Craig and Matsumoto in order to develop space-efficient keys (col. 10, lines

21-22).

28.   For claim 21, Craig and Matsumoto do not expressly disclose that said updating step

comprises clearing the bit of the bit vector. Mattis teaches this limitation (col. 31, line 15 – col.

32, line 18). At the time the invention was made, one of ordinary skill in the art would have used

bit vectors in Craig and Matsumoto in order to develop space-efficient keys (col. 10, lines 21-

22).

29.   For claim 36, Craig and Matsumoto do not expressly disclose that, in said assigning step,

the key is assigned by taking the next available key from a list of keys. Mattis teaches this

limitation (Fig. 3A). At the time the invention was made, one of ordinary skill in the art would

have used bit vectors in Craig and Matsumoto in order to develop space-efficient keys (col. 10,

lines 21-22).

30.   For claim 37, Craig and Matsumoto do not expressly disclose that updating the cache

directory when the content fragment becomes invalid by releasing the key assigned to the content

fragment and inserting the key back into the list of keys. Mattis teaches this limitation (col. 23,

line 55 – col. 24, line 20). At the time the invention was made, one of ordinary skill in the art

would have used bit vectors in Craig and Matsumoto in order to develop space-efficient keys (col. 10, lines 21-22).

31.   For claim 38, Craig and Matsumoto do not expressly disclose that the key comprises an integer, and wherein the list of keys comprises a free list of unused integers. Mattis teaches this limitation (col. 10, lines 25-35). At the time the invention was made, one of ordinary skill in the art would have used bit vectors in Craig and Matsumoto in order to develop space-efficient keys (col. 10, lines 21-22).

32.   Claim 41 is drawn to the limitations in claim 7. Therefore, since claim 7 is rejected, claim 41 is also rejected for the reasons above.

33.   Claim 42 is drawn to the limitations in claim 21. Therefore, since claim 21 is rejected, claim 42 is also rejected for the reasons above.

Conclusion

34.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They regard further teachings on management of proxy caches and on dynamic page building using templates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H. Pollack whose telephone number is (571) 272-3887. The examiner can normally be reached on 8:00-4:30 M-F.
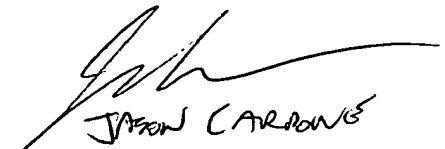
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
3 November 2005

JASON CARDONE
SPE AU2145